
RCRA RE-INSPECTION REPORT:

RCRA Lead Inspector: Carl F. Plossl, Environmental Engineer
RCRA Inspector: Meghan La Reau, Environmental Scientist
Date and Time of Inspection: 25 January 1999 2:52 p.m.
EPA Handler ID #: -----
Reason for Inspection: RCRA Reinspection
Type of Inspection: RCRA/NESHAP/Multi Media Compliance Evaluation Inspection

Attendees:

Carl F. Plossl, USEPA Region II DECA-RCB, (212) 637-4137
Meghan La Reau, USEPA Region II DECA-RCB, (212) 637-4148
-----, President, The Garment Cleaners, (718) 272-0010
-----, Vice President, The Garment Cleaners, (718) 272-0010
-----, Plant Manager
-----, Plant Operator
-----, Administrator

Background:

The Garment Cleaners is a dry cleaning, laundering, drapery cleaner, and tailoring operation. This facility is an industrial dry cleaner, receiving soiled articles from drop-off facilities, as well as commercial facilities, such as hotels. The site is located on a well-traveled avenue in a mixed industrial and residential section of Brooklyn. The Cleaners has been in operation at this location for approximately thirty (30) years. There are currently slightly under thirty (30) employees. Ever since this facility has been open, the owner/operator has used tetrachloroethylene (CAS 127-18-4), commonly called perc. The facility is located in a high-ceilinged one story building constructed primarily of brick, approximately 100 ft. long x 70 ft. wide x by 40 ft. high. The site is on ----- Avenue at the intersection of ----- Street. The site has historically been a dry cleaner. EPA acknowledged the hazardous waste notification on -----, 1985, for the handling of F002 (notification submitted by a Mr. -----).

A review of the facility manifest records and an inspection of their operation indicated a borderline small quantity generator (SQG) / large quantity generator (LQG) status. They have previously been inspected under RCRA (-----, 1998), receiving a Notice of Violation (NOV). The response to the NOV was deemed inadequate and the facility was scheduled for reinspection. The facility was referred to ACB (no action taken).

Data for this facility has not been recorded in either the Permit Compliance System or the Toxic Release Inventory. The Aerometric Retrieval System shows regular state air inspections, the most recent being January, 1998.

According to Mr. -----, Vice President, and Mr. -----, President, The Garment Cleaners, they purchased the facility from ----- on August 1, 1998. In the facility's response to EPA's NOV, received September 14, 1998, no mention of a change in ownership was made. The NOV response was signed by Arnold Rothstein. Mr. -----, Manager at the time of the previous inspection, left business at the time of the sale.

Dry Cleaning Operations:

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At the time of the inspection, the facility employed four industrial dry-to-dry machines; a Hoffman 2010 3rd generation plant, bought used in the late 1980's (Plant #4), and three Omega Cleaning Systems 3rd generation plants (Plants #1-3), bought new between 1988 and 1991 (see Plant Layout below).

In the dry cleaning operation, perc is reused through several recovery and recycling systems. Soiled clothing is loaded into the washer/dryer unit. Perc from the storage tank is pumped through a series of paper and carbon

cartridge filters, only in Plant #4, or through a series of spin disk filters prior to entering the wash cycle to remove soluble and insoluble particulates and volatile residues. The filtered perc is combined with detergent and pumped into the washer drum where it is mixed with the clothing. The clothes and solvent mix are agitated by rotation of the washer's drum. After washing, the soiled solvent mixture is extracted by centrifugal action. Warm recirculating air then volatilizes much of the remaining perc. Water, supplied from a chiller unit, is used for cooling both the solvent and the distillation unit. This non-contact water is then disposed of via the NYCDEP sewer and POTW system (down the drain).

The soiled solvent mixture from the wash cycle is pumped first through lint screens to remove buttons and other objects, lint, and some insoluble particulates. The filtered solvent mix is then returned to the perc storage tank. Periodically, perc solvent mix is cycled through a distillation unit to remove non-volatile residues, such as oil, grease, and dye, from the perc. The still bottoms (muck) are scraped out of the still, by hand.

Periodically, the carbon/paper cartridges in Plant #4 become saturated and are replaced. The cartridge filters are drained to recover perc before disposal (filters continue to drain in sealed hazardous waste drums). For the Omega Plants (#'s 1-3) residual from the spun disk compartments is scraped out by hand into steel transfer boxes. The screen residue waste is then transferred to drums. The spin disks are then washed in the facility's aqueous washing machines to further remove perc-contaminated residue. Wastewater from this washing process is disposed of down the drain. Plants #1, 2, & 3 had previously used diatomaceous earth filters (replaced since last inspection), which, when spent, was transferred into the distillation unit to be "cooked" for perc recovery.

Perc and water are recovered from the dryer vapor streams by a refrigerant condensation process. The perc/water condensate drains into the separation unit. Perc is salvaged through settling and separation, perc is denser than water and somewhat immiscible, then returned to the perc storage tank. The residual perc-contaminated separator water is collected in open, unlabeled buckets (see Figures 5, 12, 13, & 16). Periodically, residual separator water is either transferred directly from the collection buckets to a dedicated wastewater treatment unit (see Figure 2) or disposed of down the drain. Plant #3 has a direct connection to the wastewater treatment unit.

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At the time of the inspection, the odor of perc was strong as we approached the door way to room containing the dry cleaning plants. The hand-held halogen leak detector registered halogen vapor continuously anywhere near the plants (calibrated outside). Perc vapor was sufficiently prevalent to render moot any question of locating individual leaks. According to Mr. -----, Plant Manager and Mr. -----, Plant Operator, the facility was equipped with post-refrigerated condenser temperature sensors. The sensors were not monitored as they were located on top of the individual plants and were not readable unless one climbed on top (a task judged unsafe at best, by us). No leak repair and parts order and replacement records were kept by the facility. No weekly leak detection program records were kept. The dry cleaning equipment, flooring, walls, and every other surface was coated with old perc and lint residues, frustrating even a limited visual leak detection effort. Two steady, visible liquid leaks were evident at the time of the inspection from plants #1 & 3 (see Figures 1-3 and 12-15). According to Mr. White, the #3 plant leak was first noticed "about a week ago". No residual perc recovery system (carbon adsorber) was in evidence nor were the facility operator or manager familiar with such a system (required for major sources as of 23 Sept 96).

Perc Usage:

Only recent perc purchase receipts were available for inspection. During the period from November 3, 1998 until December 22, 1998, the facility bought some 24 drums of perc (at 19.2-gal of perc/drum). This equates to a perc usage of 365-gal perc in 49 days or 2700-gal perc/year. This rate would make the facility a major area source. No running total annual perc consumption calculations are made by the facility nor were any perc mileage estimates prepared.

Nonhazardous Waste Generation:

According to information obtained in the previous and current inspection, the laundry operation produces a limited variety of non-hazardous waste streams including household type wastes and POTW wastewaters. Specifically:

1. Paper, food, and other household type wastes are removed and land filled.
2. Plastic bags and coated steel hangers are collected at the facility and returned to the supplier for credit.
3. Laundering wash water, soiled water and detergent, as well as non-contact cooling water, is piped directly into the municipal sewers (no industrial permit). The laundering water sometimes contains perc-contaminated residuals from spin disk cleaning.

Hazardous Waste Generation and Management:

At the time of the inspection, hazardous wastes found to be generated by The Cleaners consisted of perc still bottoms (F002 and D039), lint wastes (F002 and D039), spent filter cartridges (F002 and D039), spin disk residuals (F002 and D039), perc separator water (D039), perc-contaminated steam press water (D039), perc spill residual (U210, F002, and/or D039), and mercuric hazardous wastes (D009);

1. The still bottom residues are generated in a distillation process employed to remove nonvolatile residues, such as oil, grease, and dye, from the perc. The volatilized perc is then recovered by the refrigerant condensation unit. Still bottoms are a RCRA hazardous waste (F002) under the derived from rule, 40 CFR § 261.3(c)(2)(i). The still bottoms are scraped out of the still, by hand,

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into unlabeled and open steel pans (routinely left caked with residual) and transferred into standard, 15-gal black plastic drums. Drums were not labeled as hazardous waste nor did they have accumulation state dates. At the time of the inspection, two of the three drums were not securely closed (lids partly askew).

2. Lint wastes are generated by passing the soiled solvent mixture from the wash cycle through lint screens and disk filters to remove buttons and other objects, lint, and some insoluble particulates. These lint wastes are incorrectly disposed of directly as solid waste. Lint wastes are a RCRA hazardous waste (F002) under the derived from rule, 40 CFR § 261.3(c)(2)(i). According to Mr.-----, lint wastes are vacuumed up with a canister shop vacuum (unlabeled- see Figure 18). The shop vac is routinely emptied into the dumpster to be disposed of as solid waste every couple of days.
3. The spent filter cartridge wastes are generated by passing used perc extracted from the washing cycle through a series of external cartridge filters (Plant #4, only). The individual filter cartridges are disposed directly as hazardous waste. They are a RCRA hazardous waste (F002) under the derived from rule, 40 CFR § 261.3(c)(2)(i). The cartridge filters are first drained to recover perc then removed and placed in Safety-Kleen drums. No spent filter cartridge wastes were present at the time of the inspection.
4. The spin disk residuals wastes are generated by passing used perc extracted from the washing cycle through a series of external disk filters (Plants #1, 2, & 3). The disks are spun to remove the bulk of the perc-contaminated residuals. These residuals are scraped out of the spin residual compartment, by hand, into unlabeled and open steel pans (routinely left caked with residual) and transferred into the still bottom plastic drums. Individual spin disks are then washed in the facility's aqueous washing machines to further remove perc-contaminated residue. Wastewater from this washing process is disposed of down the drain. Spin disk residuals are a RCRA hazardous waste (F002) under the derived from rule, 40 CFR § 261.3(c)(2)(i).
5. Perc-contaminated separator water results from the condensation of perc/water vapor streams from the drying processes. The perc solution is treated in a settling tank (perc has a specific gravity of 1.62). The separator water remains contaminated with perc at the temperature dependent solubility limit (150 mg/L at 25°C). Separator water originating in perc/water vapor streams is a RCRA hazardous waste (D039) from the soluble perc (regulatory level = 0.7 mg perc/L). In normal operation, this perc-contaminated separator water is collected in an open, unlabeled buckets (see Figures 5, 12, 13, & 16). Plant #3 has a direct connection to a dedicated wastewater treatment unit (see Figure 2). According to Mr. -----, residual separator water periodically is transferred directly from the collection buckets to the wastewater treatment unit, with each plant generating one five-gallon bucket of separator water every two to three days. When asked to demonstrate this procedure, he was unable to do so. During the inspection, the separator water collection bucket for plant #1 was overflowing into a run-off trough leading to a floor drain (see Figures 12-15). When pointed out, the facility personnel made no effort to correct the problem. According to EPA policy, separator water evaporators may qualify for the wastewater treatment unit exemption under RCRA to 40 CFR 264.1(g)(6), provided the unit meets the three-part definition of wastewater treatment unit in 40 CFR 260.10.
6. Perc-contaminated steam press water is generated from the steam pressing of dry cleaned textiles. Residual perc in the textiles is mobilized by contact with steam and high temperature water while under mechanical pressure. The facility employs a steam

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vacuum collection system to capture the majority of vapor emissions (see Figure 19). The vacuum pumps are located along an outside wall behind the steam press units and are connected to a liquid holding tank. Perc-contaminated steam press water is most likely a RCRA hazardous waste (D039) from the soluble perc and separated perc (regulatory level = 0.7 mg perc/L)¹. According to Mr. -----, the wastewater from the vacuum tanks is allowed to flow through a pipe in the wall to the ground outside. This arrangement was confirmed by us (see Figures 19 & 24). The steam press vacuum tank is not regularly inspected not is labeled as a hazardous waste storage tank.

7. Perc spill wastes appear to be routinely generated by the facility (U210, D039 and/or F002). Some spills are mopped up with old blankets or other absorbent textiles. The resultant saturated textile is placed in with a dry cleaning load, thus recovering most of the perc. Generally though, judging from the old spill residuals and the two current leaks, spills appear to flow into the run-off troughs leading to floor drains. At the time of the inspection, plant #3 exhibited a continuous leak from the distillation/muck cooker unit (see Figures 1-3). It was unclear whether the leak was primarily a steam/water leak, as opinion ed by Mr. White, or a mixed steam/water and perc residual solution as suggested by the resulting liquids dark color. The resulting liquid waste stream was partially captured by textiles with some flow into the floor drains. Most of the waste liquid appeared to be evaporating (based on the week-long nature of the leak). The other observed liquid leak was originating in the distillation/muck cooker unit from plant #1. This leak was dripping directly from the perc residual tank and was being mostly captured by a metal pan placed below (see Figures 12-15). The pan was open and residual staining on the sides and on the floor below suggested that waste overflow was a problem. The floor was stained with dark residuals leading to the trough and floor drain behind the machine (see Figure 17).
8. Other system loses of perc include considerable unrecovered spillage, system vapor and liquid leakage, open containers, caked-on residuals from transfer containers, and steam press and other volatilization of residual perc contained in cleaned clothing.
9. Spent fluorescent light bulbs are generated occasionally and managed as solid waste (placed in the dumpster). Spent fluorescent bulbs can be a toxic characteristic waste for mercury (D009).

According to Mr. -----, President, and -----, Vice President of The Cleaners, the facility had no designated environmental coordinator. Mr. -----, Plant Manager and -----, Plant Operator were the only personnel managing hazardous waste (with Mr. ----- handling all of the day-to-day tasks). Safety-Kleen currently handles the facility's hazardous waste transportation, treatment, and disposal needs. In Safety-Kleen's judgement, the facility generates still residues (F002, D007, D008, D039, D040), and spent cartridge filters hazardous wastes (F002 & D039)².

¹ Perc/water solutions will form a binary azeotropic mixture at elevated temperatures (16 % water / 84 % perc at 190°F), with a with boiling temperatures less than that of either pure perc or pure water.

² It is Safety-Kleen's policy to list all hazardous waste codes that have in the past been statistically associated with dry cleaner perc still residues and cartridge filters. This is not meant to suggest that this is an accurate representation of this facility's waste stream.

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The NY State Manifest Information records (Safety-Kleen) for 1996-1998 show a relatively large amount of perc hazardous waste transported regularly on monthly basis. An evaluation of the manifest records yields a small quantity generator status based only on reported wastes (see Attachment 1). Based on estimates given by the plant operator, monthly waste estimates should be increased by approximately 700-lbs to reflect perc-contaminated wastewater and lint waste.

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| . | Total reported haz. waste generation over period (Jan 96 - Dec 98) = 36,60 |
| . | 5 lbs Average monthly reported generation over period = 1,106 |
| . | lbs Corrected average monthly reported generation over period = ~1,80 |
| . | 0 lbs Correc ted perce ntage of month s as an LQG (vs. SQG) since Jan 96 = |

Pollution Prevention & Waste Minimization:

The Cleaners is operating four 3rd generation dry cleaning plants. Plants of this design have reduced perc emissions and waste generation, compared to transfer machines, when properly operated. The lack of a leak detection program, no post-condensation temperature monitoring, the strong and persistent odor of perc, and the obvious leaks and spills are all evidence of improper machine operation. No training activities, such as safety, emergency procedures, and pollution prevention, are conducted at the facility. The owners were almost completely unfamiliar with modern dry cleaning operations.

Document Review:

Manifest records were reviewed only for the period since the last RCRA inspection (April 21, 1998). One signed TSDF manifest copy, and one LDR form were unavailable at the time of the inspection. The state copy was not mailed in to NYSDEC for one manifest. Past perc purchase, repair, temperature sensor, and any leak detection inspections records were unavailable (see Dry Cleaning Operations).

Inspection Summary:

Details (from Meghan La Reau):

We (Carl Plossl and Meghan La Reau of EPA) met initially with the manager, Mr. -----. After identifying ourselves, we were introduced to Mr. -----, Vice President, and, shortly there after, -----, President, of The Garment Cleaners. We discussed the generator requirements under RCRA, the facility operations, and the nature of our NOV follow-up reinspection. The previous inspection and violations were discussed and the owners indicated that they took over ownership in August 1998 and had no knowledge of previous violations. They are using the same dry cleaning machines as before, however, the machines were "fixed up" prior to their ownership. The facility is still using Safety Kleen as their hazardous waste disposal company. We then asked for, and were given a tour of the dry cleaning operations.

They took us into the back of the facility where the dry cleaning takes place. Four machines were observed during the inspection. Three of the machines are Omega Cleaning Systems and one is a Hoffman 2010. At this time, one machine was leaking a purple-ish liquid (plant 3). The liquid was pooling, somewhat, on the flooring below what appeared to be old sheets placed between plants #3 & 4 to limit the flow. Some liquid had flowed into a floor drain. According to -----, the Plant Operator, the leak has been occurring for about a week and believed it was coming from the steam line where it connected into the distillation/muck cooker unit (but he was not sure). Three plastic drums were observed behind two machines. Two of the three drums were not securely closed and none of the drums had hazardous waste labels. One drum had a label, however, the label was illegible. According to Mr. -----, hazardous waste still bottoms are stored in the drums. According to Mr. -----, the still bottoms were generated that day. Five still bottom plastic drums were observed behind the other two machines, plants #1 & 2, in the dry cleaning area. None of the covers were securely fastened and no labels were observed on the drums.

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At this point in the inspection, Carl Plossl and Mr. ----- began discussing how the machines operate. Mr. ----- cleans the spin disk filters used in the machines, empties the resultant sludge into the plastic drums, and washes the filter in a regular washing machine. Mr. ----- disposes of the cartridge filters in a special drum from the one machine that uses cartridge filters.

Separator water was observed in 5-gallon buckets throughout the dry cleaning area. One bucket was observed to be overflowing into a trough in back of the machines which discharges to the public sewer system. At this time, another machine was observed to be leaking (distillation unit from plant #1). According to Mr. -----, a repairman inspects the machines every Monday morning for leaks, however, The had no records of his inspections or inspection reports. Floor drains were observed throughout the facility and the floors appeared stained from years of spills and/or leaks. According to Mr. -----, each machine generates one five-gallon bucket of separator water every two to three days. Plant #3 was hooked-up directly to a wastewater treatment unit. Mr. White told us that he poured the separator water from the other machines into this unit also. When asked to demonstrate this procedure, he was unable to do so.

According to Mr. -----, the facility manager, no hazardous waste training is conducted. No pollution prevention or waste reduction plan is in place at the facility. According to Mr. -----, no emergency coordinator exists for the facility.

Emergency postings and extinguisher locations were observed next to telephones, however, no spill control locations were posted. A spill control kit was observed in between two chiller units, however, it was obvious that the spill kit was never used or tested as a layer of dust was observed on top of the kit.

According to Mr. -----, he disposes of lint as a solid waste. The lint is collected by Mr. ----- in a vacuum (canister-style shop vac) and the contents are disposed in the dumpster. The dumpster was observed in the back of the property. The vacuum is cleaned out every couple of days.

Outside, in the back of the building, three plastic drums, a 55-gallon drum (labeled as percloroethylene), five-gallon buckets, and other debris were observed near the dumpster. Most containers were opened and filled with a liquid (probably rainwater). No labels were observed on the containers. According to employees, the 55-gallon drum was at one time used to store tetrachloroethylene (perc). Mr. ----- initially indicated that the drum was empty and had been placed outside just a couple days ago but Mr. ----- quickly amended his employer's statement to say that it had been there for "a long time". The drum was rusted shut with debris piled around it. From our attempts to shift the drum and the sounds the drum made when rapped on the side, it seemed to contain an appreciable amount of liquid.

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| Enforcement sensitive details (from Carl Plossl): |
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During the inspection several issues were noted and are potential violations of RCRA: storage of separator water and the overfilling of the water onto the floor and into drains, drums not labeled or sealed properly, staining and spills located throughout the dry cleaning area, and lint disposed of a solid waste. Carl Plossl indicated that he would look into the issue of new ownership and the previous owner not correcting the original violations.

Observations:

The facility is major area source and a small quantity generator with a history of very problematic dry cleaning operation and hazardous waste management practices and numerous repeat violations. All of the significant NESHAP violations were originally addressed with the facility during the original -----, 1998 RCRA inspection. At that time, a multimedia dry cleaning inspection was performed and the results were shared with the facility.

The following specific new and repeat violations and concerns were noted during the reinspection:

General Requirements - 6 NYCRR § 372.2(a) and 40 CFR § 262 Subpart A:

14. 6 NYCRR § 372.2(a)(2) and 40 CFR § 262.11 requires the generator to make a determination as to whether or not the generator's solid waste is a hazardous waste:

Repeat Violation.

At the time of the inspection:

- a. The facility routinely disposes of its perchloroethylene (perc) contaminated lint waste with the regular trash (solid waste). The Cleaner's solid waste transporter is not authorized to handle hazardous waste. Lint wastes are a RCRA hazardous waste (F002) under the derived from rule, 40 CFR § 261.3(c)(2)(i).
- b. The facility routinely employs steam presses subsequent to dry cleaning clothing. Steam press vacuum water is disposed of by piping it out to the soil outside the building. Perc-contaminated steam press water is most likely a RCRA hazardous waste (D039) from the soluble perc and separated perc (regulatory level = 0.7 mg perc/L).
- c. Individual perc-contaminated spin disks are washed in the facility's aqueous washing machines to remove perc-contaminated residue. Wastewater from this washing process is disposed of down the drain. Spin disk residuals are a RCRA hazardous waste (F002) under the derived from rule, 40 CFR § 261.3(c)(2)(i).
- d. The facility disposes of fluorescent light bulbs as solid waste. Spent fluorescent bulbs may be a toxic characteristic waste for mercury (D009).

In the -----, 1998 NOV, The was cited for failure to make a hazardous or nonhazardous waste determination on a drum containing a layer of liquid on the bottom which exhibited an odor of perc. The facility's response stated that the owner, Mr. ----- tasted the liquid and thus determined that it was not a hazardous waste. This novel determination effort could fit a broad definition of employing generator's knowledge.

15. 6 NYCRR § 372.2(a)(8)(iii)(e)(1) and 40 CFR § 262.34(d)(5)(i) requires that at all times there must be at least one employee on-site or on call with the responsibility for coordinating emergency measures.

At the time of the inspection, according to Mr. -----, President, and -----, Vice President of The

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Cleaners, the facility had no designated environmental coordinator.

16. 6 NYCRR § 372.2(a)(8)(iii)(e)(2)(ii) and 40 CFR § 262.34(d)(5)(ii)(B) requires the posting of the location of fire extinguishers and spill control material and, if present, fire alarm, next to the telephone: **Repeat Violation.**
17. 6 NYCRR § 372.2(a)(8)(iii)(e)(2)(i) and 40 CFR § 262.34(d)(5)(ii)(A) requires the posting of the names and telephone numbers of the emergency coordinators next to the telephone: **Repeat Violation.**

At the time of the inspection, no spill control locations nor emergency coordinator names and telephone numbers were posted.

18. 6 NYCRR § 372.2(a)(8)(iii)(e)(3) and 40 CFR § 262.34(d)(5)(iii) requires that the generator has ensured that all employees are thoroughly familiar with proper waste handling and emergency procedures: **Repeat Violation.**

The facility's management of hazardous waste, as detailed in the surfeit of other violations, indicates clear evidence of improper waste handling by employees.

Accumulation Area Requirements - 6 NYCRR § 372.2(a)(8)(i) and 40 CFR § 262.34(c):

10. 6 NYCRR § 373-3.9(d)(1) and 40 CFR § 265.173(a) require containers holding hazardous waste to always be closed during storage, except when it is necessary to add or remove waste: **Repeat Violation.**
11. 6 NYCRR § 373-3.9(d)(2) and 40 CFR § 265.173(b) require that containers holding hazardous waste not be opened, handled, or stored in a manner which may rupture the containers or cause them to leak.
12. 6 NYCRR § 372.2(a)(8)(i)(a)(2) and 40 CFR § 262.34(c)(1)(ii) require the generator to clearly mark each container in accumulation areas with the words "Hazardous Waste" and (NY)/or with other words that identify the contents of the containers: **Repeat Violation.**

The canister shop vacuum used by the facility for perc-contaminated lint wastes, the open plastic buckets used for separator water, and the various metal pans used for waste transfer and leak containment, are satellite accumulation containers and were not in compliance with the above regulations. At the time of the evaluation, shop vacuum was not properly labeled nor did it meet the definition of closed. The separator water buckets were open, unlabeled, and wastewater overflows were observed. The metal pans used for waste transfer were open, unlabeled, and caked with perc-contaminated waste residue.

Container Storage Requirements - 6 NYCRR § 372.2(a)(8)(iii)(b) and 40 CFR § 262.34(d)(2),(4):

13. 6 NYCRR § 372.2(a)(8)(iii)(d), § 373-1.1(d)(1)(iii)(c)(2) and 40 CFR § 262.34(a)(2) require the generator to clearly mark on each container the date upon which each period of accumulation began: **Repeat Violation.**
14. 6 NYCRR § 373.9(d)(3) and 40 CFR § 262.34(a)(3) require the generator to clearly mark on each container in storage areas with the words "Hazardous Waste" and (NY)/or with other words that identify the contents of the containers: **Repeat Violation.**
15. 6 NYCRR § 373-3.9(d)(1) and 40 CFR § 265.173(a) require containers holding hazardous waste

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to always be closed during storage, except when it is necessary to add or remove waste: **Repeat Violation.**

16. 6 NYCRR § 373-3.9(e) and 40 CFR § 265.174 require the generator to inspect, at least weekly, areas where containers are stored, looking for leaking containers and for deterioration of containers and the containment system caused by corrosion and other factors: **Repeat Violation.**

At the time of the inspection, the storage drums were lacking hazardous waste labels, indication of contents, and accumulation start dates. Two of the three perc-contaminated still bottom waste drums were stored with the lid askew. Weekly inspections, as documented by a log book or other similar record, were not conducted.

Generator Manifest, Reporting, and Record keeping Requirements - 6 NYCRR § 372.2 and 40 CFR § 262 Subparts B and D:

17. 6 NYCRR § 372.2(c)(1)(i) and 40 CFR § 262.40(a) require generators to retain on-site a copy of each hazardous waste manifest for at least three years from the date that the waste that is subject of such documentation was accepted by the initial transporter: **Repeat Violation.**
18. 6 NYCRR § 372.2(c)(3) and 40 CFR § 262.42(a)(1) require the generator, if they have not received signed copies from the TSD facility within 35 days, to contact the TSD facility to determine the status of the hazardous waste. NY State requires the generator, if they have not received signed copies from the TSD facility within 45 days, to submit exception reports covering these shipments.

The following manifest records did not have a signed TSD facility copy for the -----, 1998 shipment (-----). The facility did not submit exception reports with respect to the shipment and clearly did not have a system of insuring that signed TSDF copies were received.

19. 6 NYCRR § 372.2(b)(3) and 40 CFR § 262.20(a) require the generator to distribute copies of the manifest as specified on the manifest forms, postmarked within five business days of shipment date.

At the time of the evaluation, the state copy of the -----, 1998 manifest (-----) was still present at the facility.

Preparedness and Prevention - 6 NYCRR § 373-3.3 and 40 CFR § 265 Subpart C:

20. 6 NYCRR § 373-3.3(b) and 40 CFR § 265.31 require that the facility be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water which could threaten human health or the environment.

At the time of the inspection:

- a. The dry cleaning equipment, the area behind and around the dry cleaning machines and the hazardous waste storage area, including the walls and flooring, was visibly contaminated with perc waste and lint residue from spillage or leakage. This represents a regular release, through volatilization, of hazardous waste to the air. In addition, the spill residue serves to mask any new leak from both the dry cleaning plants and hazardous waste containers.
- b. Liquid perc-contaminated waste was leaking from the distillation/muck cooker unit of plant #1. The spill containment pan had overflowed onto the floor and into the trough

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and drain system. Dry cleaning plant operation was not suspended. This represents a regular release, through volatilization, of hazardous waste to the air and an indirect release of hazardous waste to the surface waters.

- c. Numerous floor drains, located in front of the dry cleaning plants and within trough systems directly behind the dry cleaning plants and storage drums, were not sealed to minimize perc spill migration.
- d. The separator water collection bucket for plant #1 was overflowing into a run-off trough leading to a floor drain. This represents a regular release, through volatilization, of hazardous waste to the air and an indirect release of hazardous waste to the surface waters.
- e. Perc-contaminated lint wastes and spin disk residues were not being managed as hazardous wastes.

- 17. 6 NYCRR § 373-3.3(c)(3) and 40 CFR § 265.32(c) require the facility to be equipped with portable fire extinguishers, fire control equipment, spill control equipment, and decontamination equipment: **Repeat Violation.**
- 18. 6 NYCRR § 373-3.3(d) and 40 CFR § 265.33 require that the facility communications or alarm systems, fire protection equipment, and spill control equipment are tested and maintained as necessary to assure their proper operation in time of emergency.

At the time of the evaluation, the dry cleaning facility did not have available decontamination equipment. Spill control equipment was available but had clearly never been tested, factory seals were still in place, nor was it being employed in controlling the ongoing spills resulting from leaks in plants #1 and 3.

- 21. 6 NYCRR § 373-3.3(g)(1)(i) and 40 CFR § 265.37(a)(1) require that the owner or operator attempt to make arrangements where appropriate to familiarize police, fire departments and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes: **Repeat Violation.**
- 22. 6 NYCRR § 373-3.3(g)(1)(iii) and 40 CFR § 265.37(a)(3) require agreements with State emergency response teams, emergency response contractors and equipment suppliers: **Repeat Violation.**
- 23. 6 NYCRR § 373-3.3(g)(1)(iv) and 40 CFR § 265.37(a)(4) require that the owner or operator attempt to make arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions or releases at the facility: **Repeat Violation.**

Where State or local authorities decline to enter into such arrangements, the owner or operator must document the refusal in the operating record. At the time of the evaluation, the facility had no record of arrangements with either the fire department, police, emergency response teams (NYCDEP), or any local hospital.

Perc-contaminated Wastewater Management - 6 NYCRR § 232.9:

- 24. 6 NYCRR § 232.9 (b) requires that perc-contaminated wastewater that is evaporated or discharged to a sewer system must be treated by physical separation (water separator) and double

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carbon filtration prior to evaporation: ***Repeat Violation.***

At the time of the inspection, perc-contaminated wastewater was overflowing from one accumulation container and into the sewer system. Other wastewater containers were also open to evaporation.

Standards - 40 CFR § 63.322:

25. 40 CFR § 63.322(k), (l) & (m) require the owner or operator of a dry cleaning system to inspect the following components weekly for perceptible leaks while the dry cleaning system is operating:

- (1) Hose and pipe connections, fittings, couplings, and valves;
- (2) Door gaskets and seatings;
- (3) Filter gaskets and seatings;
- (4) Pumps;
- (5) Solvent tanks and containers;
- (6) Water separators;
- (7) Muck cookers;
- (8) Stills;
- (9) Exhaust dampers;
- (10) Diverter valves; and
- (11) Cartridge filter housings.

At the time of the inspection, the facility had no program of regular leak detection.

26. 40 CFR § 63.322(m) require the owner or operator of a dry cleaning system to repair all perceptible leaks detected within 24 hours. If repair parts must be ordered, either a written or verbal order for those parts shall be initiated within 2 working days of detecting such a leak. Such repair parts shall be installed within 5 working days after receipt.

At the time of the inspection, two of the four dry cleaning plants at the facility had visible liquid leaks, one of which had been ongoing for one week (according to the operator).

Test Methods and Monitoring - 40 CFR § 63.323:

19. 40 CFR § 63.322(e), (n) & 63.323(a)(1) require that refrigerated condensers be monitored by measuring the temperature of the air stream on the outlet side of the refrigerated condenser weekly with a temperature sensor.

At the time of the inspection, the facility had no program of regular outlet air stream temperature monitoring.

20. 40 CFR § 63.323(b)(3) requires that the air-perchloroethylene gas-vapor stream from inside the dry cleaning machine drum pass through a carbon adsorber or equivalent control device immediately before or as the door of the dry cleaning machine is opened if the dry cleaning machine is located at a major source.

At the time of the inspection, no such equipment was observed nor, when asked, did the facility indicate that such equipment was installed.

Reporting and Recordkeeping Requirements - 40 CFR § 63.324:

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21. 40 CFR § 63.324(d) & 63.323(d) require that the owner or operator of a dry cleaning facility keep receipts of perchloroethylene purchases and a log of the following information and maintain such information on site and show it upon request for a period of 5 years:
- (1) The volume of perchloroethylene purchased each month by the dry cleaning facility as recorded from perchloroethylene purchases; if no perchloroethylene is purchased during a given month then the owner or operator would enter zero gallons into the log;
 - (2) The calculation and result of the yearly perchloroethylene consumption determined on the first day of each month as specified in Sec. 63.323(d);
 - (3) The dates when the dry cleaning system components are inspected for perceptible leaks, as specified in Sec. 63.322(k) or (l), and the name or location of dry cleaning system components where perceptible leaks are detected;
 - (4) The dates of repair and records of written or verbal orders for repair parts to demonstrate compliance with Sec. 63.322(m) and (n);
 - (5) The date and temperature sensor monitoring results, as specified in Sec. 63.323 if a refrigerated condenser is used to comply with Sec. 63.322(a) or (b); and
 - (6) The date and colorimetric detector tube monitoring results, as specified in Sec. 63.323, if a carbon adsorber is used to comply with Sec. 63.322(a)(2) or (b)(3).

At the time of the evaluation:

- Only the last two months of perc purchase records were maintained;
- No running monthly calculation of yearly perc consumption determinations were made;
- No leak detection records were maintained;
- No repair records were maintained; and,
- No temperature monitoring records were maintained.

In addition to the above federal and state violations, the facility fails to meet the following stricter NY State DEC regulations:

6 NYCRR § 232: *Perchloroethylene Dry Cleaning Facility:*

1. Seal all floor drains and flooring in the vicinity of the dry cleaning equipment and hazardous waste storage so that they are impermeable to spills.

Compliance Assistance:

We supplied the facility with copies of the following EPA and NYSDEC publications:

- *Understanding the Hazardous Waste Rules; A Handbook for Small Businesses--1996 Update;*
- *Plain English Guide for Perc Dry Cleaners; A Step by Step Approach to Understanding Federal Environmental Regulations;* and,
- The NYSDEC *just the FACTS* series on 6 NYCRR Part 232: Perchloroethylene Dry-cleaning Facilities.

We discussed with Mr. -----, President, and Mr. -----, Vice President of The Garment Cleaners, the specific NESHAP and RCRA regulations applicable to their facility and how they might come in to compliance.

RCRA RE-INSPECTION REPORT:

Enforcement recommendation:

RCB and ACB formal enforcement.

Attachments:

Generator status and waste estimate spreadsheet. Digital photos on file and available upon request.

Figures:

Table 1: List of inspection photo images
(located in G:\user\share\dryclean\inspect\other\-----\Card)

| Figure | File | Photo Description |
|--------|-----------|---|
| 1 | Maj1.JPG | Distillation/muck cooker leak in plant #3 (right side view) |
| 2 | Maj2.JPG | Distillation/muck cooker leak in plant #3 (left side view) (wastewater treatment unit in background) |
| 3 | Maj3.JPG | Distillation/muck cooker leak in plant #3 (close-up) |
| 4 | Maj4.JPG | Back of dry cleaning plants #3 & 4 |
| 5 | Maj5.JPG | Separator water container behind plant #4 (open & unlabeled) |
| 6 | Maj6.JPG | Plant #4 process piping (with spill residue) |
| 7 | Maj7.JPG | Accumulation container behind plants #3 & 4 |
| 8 | Maj8.JPG | Another accumulation container behind plants #3 & 4 |
| 9 | Maj9.JPG | Lids of drums behind plants #3 & 4 (considerable spill residue) |
| 10 | Maj10.JPG | Trough behind plants #3 & 4 (considerable lint & spill residue) |
| 11 | Maj11.JPG | Drum lid behind plants #3 & 4 |
| 12 | Maj12.JPG | Back of dry cleaning plants #1 & 2 (showing overflow from accumulation containers into trough/drain system) |
| 13 | Maj13.JPG | Close-up of ongoing spill (from Figure 12) |
| 14 | Maj14.JPG | Close-up of ongoing spill into trough/drain system (from Figure 12) |
| 15 | Maj15.JPG | Close-up of ongoing leak and spill overflow from distillation/muck cooker in plant #1 (from Figure 12) |
| 16 | Maj16.JPG | Separator water container behind plant #4 (open & unlabeled) |
| 17 | Maj17.JPG | Spill flow from trough/drain system into floor drain (from Figure 12) |
| 18 | Maj18.JPG | Canister shop vacuum employed for perc-contaminated lint collection and storage (open & unlabeled) |
| 19 | Maj19.JPG | Steam press vapor collection vacuum and tank (with outside wall effluent pipe) |
| 20 | Maj20.JPG | Steam press vapor collection vacuum and tank (inlet pipe and valve) |

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|----|-----------|--|
| 21 | Maj21.JPG | Outside trash and dumpster area (discarded 55-gal drum labeled as perc in center left) |
| 22 | Maj22.JPG | Close-up of discarded 55-gal drum labeled as perc. |
| 23 | Maj23.JPG | Outside wall pipe (no significance) |
| 24 | Maj24.JPG | Outside wall pipe (effluent from steam press vapor collection) |

CARL F. PLOSSL
LEAD INSPECTOR

11 FEBRUARY 1999
DATE

MEGHAN LA REAU
INSPECTOR

11 FEBRUARY 1999
DATE